314 CMR 18.00: INDUSTRIAL WASTEWATER HOLDING TANK AND CONTAINER CONSTRUCTION, OPERATION, AND RECORD KEEPING REQUIREMENTS

Section

18.01: Purpose

The purpose of 314 CMR 18.00 *et seq*. is to protect the public health, safety and the environment by providing construction, operation, and record keeping requirements for holding tanks, mobile tanks, and containers that accumulate or store industrial wastewater prior to off-site recycling, treatment or disposal. 314 CMR 18.00 directs owners and operators of industrial wastewater holding tanks to comply with these standards, submit a performance-based compliance certification, and keep necessary records.

18.02: Applicability

(1) 314 CMR 18.00 applies to all persons who own or operate a holding tank, mobile tank, or container that meets all of the following criteria:

(a) the holding tank, mobile tank, or container is used exclusively to accumulate or store industrial wastewater generated on-site or off-site;

(b) the industrial wastewater in the holding tank, mobile tank, or container will be transported directly to an off-site facility for recycling, treatment, or disposal; and

(c) the wastewater accumulated or stored in the holding tank, mobile tank, or container is non-hazardous non-domestic industrial wastewater.

314 CMR 18.00 applies to new and existing holding tanks, mobile tanks, and containers. Holding tanks include above-ground holding tanks and in-ground holding tanks. Holding tanks also include tanks created by the conversion of septic tanks or oil and water separators for exclusive use as industrial wastewater holding tanks.

(2) 314 CMR 18.00 does not apply to:

(a) tanks or containers used for production processes, industrial wastewater treatment systems, non-contact cooling water, and heating or cooling condensate;

(b) sanitary tight tanks regulated by 310 CMR 15.260;

(c) holding tanks and containers that are used exclusively to accumulate and store non-hazardous industrial wastewater prior to shipping to a licensed Treatment, Storage and Disposal Facility (TSDF) and that meet holding tank and container standards contained in the Massachusetts Hazardous Waste Regulations at 310 CMR 30.000; and

(d) hazardous waste holding tanks and containers that are subject to the Massachusetts Hazardous Waste Regulations at 310 CMR 30.000.

(3) The requirements in sections 314 CMR 18.07 through 314 CMR 18.09 also apply to leachate collection tanks at solid waste facilities, provided that the leachate collection tanks also shall be constructed in accordance with an approval issued by the Department pursuant to the Solid Waste Management Regulations at 310 CMR 19.000.

18.03: Exemptions

Owners and operators of facilities regulated pursuant to the following regulations are exempt from the provisions of 314 CMR 18.00:

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(1) 310 CMR 72.04: *Performance Standard for Dry Cleaners*;

(2) 310 CMR 71.06: *Supplemental Requirements for Photo Processors and Printers;* and

(3) 310 CMR 40.0000: *Massachusetts Contingency Plan*.

18.04: Definitions

The following words and phrases, except as otherwise required by the context, have the following meanings when used herein:

Above-ground Holding Tank means any holding tank constructed and positioned completely on or above the plane of the adjacent surrounding surface.

Commonwealth means the Commonwealth of Massachusetts.

Compatible Materials means materials that are suitable for mixing or contact without causing containment corrosion, degradation, or an undesirable chemical reaction.

Container means any portable device used to accumulate, store, or transport industrial wastewater, except mobile tanks as defined in 314 CMR 18.04.

Decommissioning In-Ground Holding Tank means removing an in-ground holding tank from the site, filling an in-ground holding tank with an inert material (such as clean sand or soil), or permanently changing the function of an in-ground holding tank from accumulating and storing industrial wastewater to any other use.

Department means the Massachusetts Department of Environmental Protection.

Disposal means the discharge, deposit, injection, dumping, spilling, leaking, incineration, or placing of any industrial wastewater into or on any land, water, or treatment facility so that it may enter the environment, be emitted into the air, or be discharged into waters, including groundwater.

Domestic Wastewater or Sanitary Wastewater or Sewage means water containing human or animal wastes from residences, buildings, industrial establishments or other places.

Double-walled Tank means a holding tank that is an integral tank structure that includes an inner tank and an outer shell. The inner tank shall be completely enveloped within an outer shell so that any release from the inner tank shall be contained by the outer shell.

Episodic Situation means a temporary situation caused by non-routine or irregular incidents.

Existing Holding Tank means a holding tank installed before November 15, 2002. A holding tank converted from a septic tank or oil and water separator is considered an existing holding tank if that septic tank or oil and water separator was converted to a holding tank before November 15, 2002.

Facility means any site or works where industrial wastewater is or will be generated, stored, treated, dewatered, refined, incinerated, reclaimed, stabilized, solidified, disposed, or otherwise processed.

Hazardous Waste means a waste considered hazardous pursuant to the Massachusetts Hazardous Waste Regulations, 310 CMR 30.000.

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Holding Tank means a stationary device, constructed of non-earthen materials (*e.g.*, concrete, steel or plastic) that provides structural support, and is used to accumulate or store industrial wastewater. Tanks that are transportable and not mounted on a truck or trailer, but merely placed on a truck or trailer, are considered holding tanks. The term holding tank does not include mobile tanks as defined in 314 CMR 18.04, but does include in-ground and above-ground holding tanks.

H-20 Loading means a standard loading as specified by the American Association of Highway Officials. For reference purposes, H-20 Loading is a standard that has been developed by the American Association of State Highway and Transportation Officials (AASHTO) and is essentially equivalent to the load that a 40,000 pound truck 14 feet long exerts as it travels over a given point, see Specifications for Highways Bridges, AASHTO, 1996, pp. 21-22.

Impervious Liner means a continuous layer of impervious material completely covering the bottom and side surfaces of a holding tank.

Incompatible Materials means materials that are not suitable for mixing or contact because the mixing or contact may cause containment corrosion, degradation, or an undesirable chemical reaction.

Industrial Wastewater means waste in liquid form resulting from any process of industry, trade or business, regardless of volume or pollutant content. Waste in liquid form consisting of only sewage is not industrial wastewater.

In-ground Holding Tank means any holding tank positioned partially or completely below the plane of the adjacent surrounding surface.

M.G.L. means the Massachusetts General Laws.

Manually Filled Holding Tank means a holding tank that can be filled only by manual operation. The tank that can be filled through a piping system by gravity or pump is not a manually filled holding tank.

Mobile Tank means a transportable tank mounted on a truck or trailer that meets applicable Department of Transportation (DOT) standards, including equipment to load industrial wastewater. Mobile tanks do not include tanks merely placed on trucks or trailers. Such tanks merely placed on trucks or trailers are defined as above-ground holding tanks under 314 CMR 18.04.

New Holding Tank means a holding tank that is installed, or a septic tank or an oil and water separator that is converted to a holding tank on, or after November 15, 2002.

Operator means the person responsible for the operation, including, but not limited to filling, emptying and maintaining a holding tank, mobile tank, or container for industrial wastewater.

Owner means a person who has effective control, or legal or equitable ownership, alone or with others, of any site where a holding tank, mobile tank, or container for industrial wastewater subject to 314 CMR 18.00 is located, including but not limited to any agent, executor, administrator, trustee, lessee, or guardian of the estate for the holder of the legal title.

Person means any agency or political subdivision of the Commonwealth, the federal govern-ment, any public or private corporation or authority, individual, partnership or association, or other entity, including any officer of a public or private agency or organization, upon whom a duty may be imposed by or pursuant to any provisions of M.G.L. c. 21, §§ 26 through 53.

Pollutant means any element or property of sewage, agricultural, industrial or commercial waste, runoff, leachate, heated effluent, or other matter, in whatever form and whether originating at a point or major non-point source, which is or may be discharged, drained or otherwise introduced into any sewerage system, treatment works or waters or on to any land of the Commonwealth.

React means to act in response to another substance to produce a chemical change.

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Secondary Containment means techniques that shall use either an impervious liner, a vault, or double-walled tank to contain spills from a holding tank to prevent a release to the environment.

Site means a geographically contiguous property in single ownership which may be divided by a public or private right-of-way, provided the entrance and exit between the two properties is at a cross-roads intersection, and access is by crossing as opposed to going along the right-of-way. Non-contiguous properties owned by the same person but connected by a right-of-way controlled by such person, and to which the public does not have access, are considered on-site property.

Surface Waters means all waters other than ground waters within the jurisdiction of the Commonwealth, including without limitation, rivers, streams, lakes, ponds, springs, impoundments, estuaries, wetlands, vernal pools, and coastal waters.

Tight Tank means a water tight vessel having an inlet to receive raw sewage but no outlet and which is designed and used to collect and store sewage until it is removed for disposal, and which is regulated under 310 CMR 15.000.

Treatment Facility or Works means any and all devices, processes and properties, real and personal, to be used in the collection, transmission, storage, treatment, disposal, recycling, reclamation, or reuse of waterborne pollutants, but not including any works receiving a hazardous waste from off the site of the works for the purpose of treatment, storage or disposal, or holding tanks regulated under 314 CMR 18.00.

Vault means an impervious underground compartment structure.

Zone A means the following land area:

(a) the land area between the surface water source and the upper boundary of the bank;

(b) the land area within a 400 foot lateral distance from the upper boundary of the bank of a Class A surface water source, as defined in 314 CMR 4.05(3)(a); and

(c) the land area within a 200 foot lateral distance from the upper boundary of the bank of a tributary or associated surface water body.

Zone I means the protective radius required around a public water supply well or wellfield. For public water system wells with approved yields of 100,000 gpd or greater, the protective radius is 400 feet. Tubular wellfields require a 250 foot protective radius. Protective radii for all other public water system wells are determined by the following equation: Zone I radius in feet = (150 x log of pumping rate in gpd) - 350. This equation is equivalent to the chart in the Division's Water Supply Guidelines. A default Zone I radius or a Zone I radius otherwise computed and determined by the Department shall be applied to transient non-community (TNC) and non-transient non-community (NTNC) wells when there is no metered rate of withdrawal or no approved pumping rate. The default Zone I radius shall be 100 feet for TNC wells and 250 feet for NTNC wells. In no case shall the Zone 1 radius be less than 100 feet.

18.05: Partial and General Prohibitions for Industrial Wastewater Holding Tanks, Mobile Tanks, and Containers

(1) No facility may use a holding tank to accumulate or store on-site generated or off-site generated industrial wastewater prior to shipping for off-site treatment or disposal if it is or becomes feasible to discharge the industrial wastewater to a sewer system, except when: the facility is requested in writing by the local sewer authority to use a holding tank prior to shipping off-site in order to meet sewer operational or maintenance requirements; there are emergency or episodic situations; or, the industrial wastewater is shipped to a licensed Treatment, Storage and Disposal Facility (TSDF). For the purpose of 314 CMR 18.05(1), the criteria for determining the feasibility of discharging the industrial wastewater to a sewer system are when:

(a) a facility has an existing sewer line connection to the sewer collection system, and the industrial wastewater discharge can be hydraulically accepted by both the sewer collection system and local wastewater treatment plant; or

(b) a facility meets all of the following conditions:

1. an existing sewer line abuts the facility boundaries;

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2. the discharge of the industrial wastewater can be hydraulically accepted by both the sewer collection system and local wastewater treatment plant; and

3. the distance from any building generating industrial wastewater to the closest sewer connection manhole is 250 feet or less.

A facility that meets the above feasibility criteria, but faces a severe financial hardship, may request an exemption from this requirement in order to maintain an existing holding tank or install a new holding tank. All requests must be submitted to the Department in writing and contain all necessary documentation to demonstrate the severe financial hardship. The Department shall review and provide a decision on the request, in writing, on a case-by-case basis. The Department may request any facility owner to update information as necessary, which may result in a revocation or continuation of the exemption.

(2) Owners and operators of holding tanks, mobile tanks, or containers used to accumulate or store industrial wastewater prior to off-site recycling, treatment or disposal shall not:

(a) store incompatible materials in the industrial wastewater holding tank, mobile tank or container;

(b) store hazardous waste in the industrial wastewater holding tank, mobile tank, or container; or

(c) install or maintain such holding tanks within the Zone I or the Zone A of a public water supply in violation of the requirements of 310 CMR 22.21(3)(b) and 310 CMR 22.20B(2), respectively, of the Department's Drinking Water Regulations.

18.06: Design and Operation Requirements for Containers

Owners and operators using a container to accumulate or store industrial wastewater prior to off-site recycling, treatment or disposal shall, at a minimum:

(1) Construct or line the container with compatible materials;

(2) Locate the container in a secured storage area over an impervious surface that is free of cracks and gaps;

(3) If the container is stored outside of a building, locate the container within a spill containment structure with 110% capacity of the largest single container or 10% of total possible contained volume of all the containers, whichever is greater, and provide necessary measures to prevent storm water collection;

(4) Keep the container closed at all times except when industrial wastewater is being added or removed;

(5) Comply with applicable requirements set by the U.S. Department of Transportation for transportation of waste off-site, as may be amended from time to time;

(6) Label the container with the words, “Non-Hazardous Industrial Wastewater”; and

(7) Implement spill prevention and control measures for transferring any industrial wastewater to or from containers or transporting a container to minimize potential release to the environment, and report to proper authorities regarding spills released to the environment as required by federal, state and local laws and regulations.

(8) Provide, at minimum, either a portable alarm system capable of sending an alarm signal to a staffed location or locate the container within a spill containment area during filling operations for containers which are:

(a) moveable only by motorized mechanical devices; and

(b) remotely or automatically filled.

18.07: Design and Operation Requirements for Above-ground Holding Tanks

Owners and operators using an above-ground holding tank to accumulate or store industrial wastewater prior to off-site recycling, treatment or disposal shall, at a minimum:

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(1) Construct or line the holding tank with compatible materials;

(2) Equip the holding tank with the following:
(a) For a Remotely or Automatically Filled Holding Tank: a level measuring device and an audio and light alarm system located in a staffed location. The alarm system shall be activated when the level of industrial wastewater reaches 75% capacity of the holding tank and the alarm signal shall be transmitted to a staffed location; or
(b) For a Manually Filled Holding Tank: a visual or sight glass type of level measurement;

(3) Provide odor control measures necessary to prevent nuisance conditions;

(4) Locate the holding tank within a spill containment structure with 110% capacity of the largest single holding tank or 10% of total possible contained volume of all the holding tanks, whichever is greater, and provide year-round access for visual inspection for the entire holding tank. The containment structure shall be located in a secured area over an impervious surface that is free of cracks and gaps to contain leaks and spills. If the holding tank is located outside of a building, provide necessary measures to prevent storm water collection;

(5) Keep the holding tank closed at all times except when industrial wastewater is being added or removed;

(6) Label the holding tank with the words, "Non-Hazardous Industrial Wastewater";

(7) Implement spill control and spill response measures for transferring any industrial wastewater to or from above-ground holding tanks to minimize potential release to the environment, and report to the proper authorities regarding spills released to the environment as required by federal, state and local laws and regulations; and

(8) Construct new on site fabricated holding tanks or associated structures in accordance with engineering plans stamped and signed by a Massachusetts Registered Professional Engineer with the appropriate specialty (including but not limited to chemical, civil, or environmental engineering).

18.08: Design and Operation Requirements for In-ground Holding Tanks

(1) Owners and operators of any new or existing in-ground holding tank used to accumulate or store industrial wastewater prior to off-site recycling, treatment or disposal shall, at a minimum:
(a) construct the holding tank so that:
1. the inner surface or the lining of the holding tank is compatible with the industrial wastewater;
2. the total holding tank capacity is greater than 500% of the average daily flow of industrial wastewater generated from the facility;
3. the holding tank does not leak through its sides, bottom, seams or top;
4. the holding tank withstands H-20 loading if the holding tank is completely below ground;
5. the holding tank foundation is capable of supporting the holding tank when it is full of industrial wastewater and preventing uplift when it is empty; and
6. there is no entrance for surface or storm water flows into the holding tank;
(b) equip the holding tank with the following:
1. a liquid level measuring device connected to an audio and light alarm system located in a staffed location. The alarm system shall be activated when the level of industrial wastewater reaches 75% of the holding tank capacity and the alarm signal shall be transmitted to a staffed location; and
2. odor control measures necessary to prevent nuisance conditions;
(c) keep the holding tank closed at all times except when industrial wastewater is being added or removed;
(d) comply with all permits or other requirements mandated by the local authorities pertaining to industrial wastewater holding tanks;
(e) label the holding tank or place a legible sign immediately adjacent to the holding tank with the words, "Non-Hazardous Industrial Wastewater"; and

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(f) implement spill control and spill response measures for transferring any industrial wastewater to or from in-ground holding tanks to minimize potential releases to the environment, and report to the proper authorities regarding spills released to the environment as required by federal, state and local laws and regulations.

(2) Owners or operators of any existing in-ground holding tank that was not constructed or converted according to a Massachusetts Registered Professional Engineer certified plan is required to obtain an integrity assessment before November 15, 2003. The integrity assessment shall be prepared by a Massachusetts Registered Professional Engineer with the appropriate specialty (including but not limited to chemical, civil, or environmental engineering), and shall state how leaks, cracks, corrosion, erosion, and uplift are to be properly managed. If the integrity assessment indicates any potential or actual deficiencies, including but not limited to leaks, cracks, corrosion, erosion, or uplift, then the owner shall take all necessary actions to correct such deficiencies or decommission the tank.

(3) Owners or operators of any new in-ground holding tank shall, in addition to 314 CMR 18.08(1):
(a) construct the holding tank in accordance with engineering plans stamped, and signed by a Massachusetts Registered Professional Engineer with the appropriate specialty (including but not limited to chemical, civil, or environmental engineering);
(b) construct the holding tank with secondary containment that meets the following minimum requirements:
1. the secondary containment shall be free from any leakage to or from the environment;
2. the secondary containment shall be constructed or lined with compatible material;
3. the foundation or base of the secondary containment shall be capable of providing support to the secondary containment and resist the pressure gradient above and below the system; and
4. the secondary containment structure shall provide space and access (including access through mechanical or electrical detection devices) to detect and remove any leakage from the holding tank;
(c) inspect the holding tank for leakage on a weekly basis at minimum, remove the leakage, if any, and repair and restore the holding tank as soon as possible.

18.09: Record Keeping

All persons who own or operate a holding tank, mobile tank, or container that accumulates or stores on-site generated or off-site generated industrial wastewater prior to off-site recycling, treatment or disposal shall comply with the following record keeping requirements:

(1) Maintain the following records at the facility for the retention time specified herein, and make these records available to Department personnel upon request:
(a) holding tank construction and installation records maintained until holding tank decommissioning, including but not limited to:
1. holding tank engineering plans stamped and signed by a Massachusetts Registered Professional Engineer, if applicable; and
2. any applicable permit from the local municipal approving authority;
(b) operating records for holding tanks and containers maintained for three years for each shipment of industrial wastewater, including but not limited to:
1. the name of holding tank operator;
2. the date of shipment;
3. the volume and description of the industrial wastewater from each source, including both on-site sources and off-site sources, if any;
4. the name and address of the receiving facility, and verification of the shipment, by means of a document, from the receiving facility; and
5. the name and vehicle registration number of the hauler;
(c) operating records for mobile tanks maintained for three years for each shipment of industrial wastewater, including but not limited to:
1. the name of the mobile tank operator;
2. the date of shipment;
3. the volume and description of the industrial wastewater from each source;

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4. the name and address of the receiving facility, and verification of the shipment, by means of a document, from the receiving facility, if the mobile tank is the only holding tank used at the facility.

(2) The retention time for these records shall extend automatically for the duration of any unresolved enforcement action against the facility related to federal, state or local environmental requirements.

18.10: Certification

(1) Beginning on November 15, 2002 either the owner or operator of an existing or new holding tank shall be required to submit a one-time compliance certification to the Department in accordance with the Environmental Results Program Certification regulations under 310 CMR 70.03(3) on a form prescribed by the Department within the following time line:

(a) For Existing Holding Tanks: submit the certification on or before February 15, 2003;

(b) For New Holding Tanks: submit the certification within 60 days of installation.

(c) a certification shall be deemed approved unless the owner or operator is notified in writing by the Department of deficiencies in the submittal within 60 days of receipt of the certification and fee pursuant to 310 CMR 4.10(11)(a).

(2) The owner or operator of the following facilities are not required to submit such certification:

(a) a facility that uses containers or mobile tanks only and does not use holding tanks to accumulate or store industrial wastewater;

(b) a facility that has a Department-issued holding tank plan approval.

(3) Any subsequent owner or operator of a holding tank is not required to submit a certification if a prior owner or operator of that holding tank submitted the certification to the Department as required by 314 CMR 18.10(1), or obtained a written holding tank plan approval from the Department.

(4) Any subsequent owner or operator of a holding tank is subject to the holding tank regulations under 314 CMR 18.00 upon acquiring ownership or initiating operation of the holding tank.

18.11: Holding Tank Decommissioning Requirements

Beginning on November 15, 2002, owners and operators decommissioning a holding tank shall:

(1) For above-ground holding tanks:

(a) pump and haul away the entire contents of the tank; and

(b) clean the holding tank and related areas as necessary.

(2) For in-ground holding tanks:

(a) pump and haul away the entire contents of the tank;

(b) clean the holding tank and related areas as necessary;

(c) decommission the in-ground holding tank with one of the following options:

1. remove the holding tank from the ground; or
2. fill the holding tank with clean sand, soil, or other inert material; or
3. change the function of the holding tank permanently;

(d) notify the Department in writing within 30 days of decommissioning with the following information:

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1. the name and address of the facility, the name of the owner or operator;
2. the date of holding tank decommissioning;
3. the most recent shipment record as specified in 314 CMR 18.09(1)(b); and
4. a brief description of how the holding tank was decommissioned.

REGULATORY AUTHORITY

314 CMR 18.00: M.G.L. c. 21, §§ 26 through 53.

NON-TEXT PAGE